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ABSTRACT

The 1986-87 Teaching Enrichment Activities to Minorities (TEAM) Project provided special education to identified minority students who exhibited characteristics that might make them eligible for placement into an advanced academic program. The 1986-87 TEAM Project operated in 16 elementary schools and served approximately 550 pupils. An evaluation of the program revealed the following: (1) 12 of the 16 TEAM schools used the appropriate criteria for admitting students to the project, while four of the schools failed to do this; (2) all TEAM teachers developed appropriate lesson plans and instructional activities; (3) project students, taken as a group, achieved gains in their reading comprehension, mathematics computation, mathematics application Stanford Achievement Tests scores, and Peabody Picture Vocabulary Test scores above and beyond those expected from spending a typical year in school; and (4) of the 56 TEAM pupils referred for admission to an advanced placement program, 28 had been tested and 21 had been accepted. Data are presented on six tables. A list of unofficial recommendations is appended. (BJV)

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DADE COUNTY PUBLIC SCHOOLS

ED297078

# EVALUATION OF THE 1986-87 ECIA CHAPTER II TEACHING ENRICHMENT ACTIVITIES TO MINORITIES PROJECT

November 1987

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# EVALUATION OF THE 1986-87 ECIA CHAPTER II TEACHING ENRICHMENT ACTIVITIES TO MINORITIES PROJECT

November 1987

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## Executive Summary

The 1986-87 Teaching Enrichment Activities to Minorities (TEAM) Project was funded under ECIA, Chapter II, in this its third year of operation, for $100,000. Its primary goal concerned the provision of "special instruction to identified minority students who exhibit characteristics that might make them eligible for placement into an advanced academic program." In brief, the Project attempted to enhance its participants' well-developed intellectual skills and remediate those which have been identified as less well-developed. By strengthening its pupils' strong cognitive abilities and ameliorating weaker ones, the Project hoped to "improve the students' thinking skills and thus make them more successful in school situations regardless of their placement in gifted, academic excellence, or regular programs."

The 1986-87 year TEAM Project operated in 16 elementary schools and served approximately 550 pupils.

This evaluation was based on data that were routinely collected by DCPS or Project personnel as well as upon information that was gathered strictly for this appraisal. Methods/sources employed included the examining of student records and teacher lesson plans, the testing of Project participants, the observing of the delivery of the TEAM-related curriculum; and the interviewing of TEAM teachers.

The evaluation addressed the following questions:

1. To what extent did the TEAM youngsters meet the selection criteria outlined in the proposal?

2. To what extent did the TEAM teachers develop lesson plans and instructional activities aimed toward enhancing their respective pupils' well-developed thinking skills and remediating those which were less-developed?

3. To what extent did the TEAM participants obtain gains on Stanford Achievement Test (SAT) scores in reading comprehension and mathematics computation above and beyond those expected from normal maturation?

4. To what extent did the Project children achieve gains on the Peabody Picture Vocabulary Test (PPVT) above and beyond those expected from normal maturation?

5. To what extent did TEAM students eventually obtain admittance to a program for the academically talented?

Results of this evaluation showed that 12 of the 16 TEAM schools used the appropriate criteria for admitting students to the Project while four of the schools failed to do this. Furthermore, the appraisal indicated that all TEAM teachers developed appropriate lesson plans and instructional activities, and that Project students, taken as group, achieved gains in their reading comprehension, mathematics computation, mathematics application SAT scores and on their PPVT scores above and beyond those expected from spending a typical year in school. Finally, the study showed that of the 56 TEAM pupils referred for admission to an advanced academic program, 28 had been tested and 21 had been accepted.

## Description of the Project

Background: Numerous children from diverse ethnic backgrounds and/or low-income families who may possess high academic potential are presently not qualifying for advanced academic programs due to their low scores on the standardized tests Dade County Public Schools (DCPS) traditionally uses to screen pupils for admittance to such programs. The Florida Department of Education's incident rate for the gifted is two percent of the total school population. Given this rate, DCPS should have approximately 700 black and about 850 Hispanic elementary students placed in some type of advanced academic program. DCPS records indicate that the number of minority students presently enrolled in such programs is considerably below the predicted figures.

During the 1984-85 school year, the Teaching Enrichment Activities to Minorities (TEAM) Project was awarded $38,416 under the Education Consolidation and Improvement Act (ECIA), Chapter II to address this problem. The Project was refunded for the 1985-86 school year in the amount of $20,000. During the first two years of its operation, a substantial proportion of TEAM's monies was used to buy materials for the teachers of TEAM students and to pay for substitute-release time so that TEAM teachers could attend TEAM-sponsored workshops without their respective schools having to underwrite these costs.

TEAM's purpose during those two years was to provide inservice training for TEAM teachers and supply them with a special curriculum and related materials. This assistance permitted the teachers to deliver a specialized critical thinking skills curriculum to approximately 100 selected minority students exhibiting characteristics that would make them eligible to be considered for placement in an advanced academic program. Its goal was to place as many of its participants as possible into such programs.

Results from the last two evaluations of this Project indicated that its features were implemented as described and as scheduled. Also, these appraisals revealed that although its participants showed little academic gain in reading and mathematics achievement as measured by their Stanford Achievement Test (SAT) scores, the Project did place (during the past two years) 28 percent of its students into programs for the academically and/or artistically talented.

During the 1986-87 school year, TEAM was awarded $100,000 under ECIA, Chapter II for the purpose of operationalizing the Project in 16 elementary schools which had not previously been involved with TEAM. All of the monies for this year's Project were to be used to underwrite the salary and benefits of a Project Manager, and to pay for materials and substitute release time for the new TEAM teachers. The goals for the 1986-87 TEAM Project as well as the activities employed to achieve these goals remained the same as in previous years.

## Description of the Evaluation

This evaluation was based on "already available" TEAM Project or DCPS data as well as upon information that was obtained solely for this study. Methods/sources employed included the examining of student records and teacher lesson plans, the testing of Project participants, the observing of TEAM related classroom materials and the interviewing of TEAM teachers.

The evaluation addressed the following questions:

1. To what extent did the TEAM youngsters meet the selection criteria outlined in the proposal?

2. To what extent did the TEAM teachers develop lesson plans and instructional activities aimed toward enhancing their respective students' well-developed thinking skills and remediating those which were less-developed?

3. To what extend did the TEAM participants obtain gains on Stanford Achievement Test (SAT) scores in reading comprehension and mathematics computation above and beyond those expected from normal school maturation?

4. To what extent did the Project children achieve gains on the Peabody Picture Vocabulary Test (PPVT) above and beyond those expected from normal school maturation?

5. To what extent did TEAM students eventually obtain admittance to a program for the academically talented?

## Results

### Extent to Which the TEAM Youngsters Met the Selection Criteria Outlined in the TEAM Proposal

The TEAM proposal stipulated that "multiple criteria" including but not limited to "teacher recommendations, and a teacher checklist which characterizes a student's motivation, learning, and creativity" would be utilized to select TEAM participants. To determined the extent to which the TEAM participants met the criteria for admission to the TEAM Project, interviews were conducted with all of the TEAM teachers and an examination was made of teacher checklists and all participants' SAT scores. Analyses of information collected from these sources showed that two schools used only the TEAM checklist, eight schools used both the checklist and student stanine scores (Note - in these particular cases stanines were utilized to eliminate Chapter I-eligible pupils), four schools used only stanines, one school (that did not receive its checklist due to its delayed admittance into the Project) used only teacher recommendations; and one school used the checklist, student stanine scores, and ethnicity as selection criteria. It should be added, that an examination of all TEAM students' stanines in reading comprehension and mathematics computation indicated that none of the Project participants were eligible for any type of compensatory education program.

In brief, 12 of the TEAM schools used either (or both) of the stipulated criteria to admit students into the Project, while four schools did not use either the checklist or teacher recommendations.

### Extent to Which the TEAM Teachers Developed Appropriate Lesson Plans and Instructional Activities to Enhance Students' Well-Developed Thinking Skills and Remediate those Less Well-Developed

To determine the extent to which the TEAM teachers developed appropriate lesson plans and instructional activities to enhance their students' well-developed thinking skills and remediate those less well-developed, inspections were made of all Project teacher's lessons plans and observations of teacher activities were made in a 50 percent random sample of TEAM classrooms. Analysis of this qualitatively collected data suggested that teachers were, indeed, preparing appropriate lessons plans (based upon concepts they had learned during inservice training), correctly employing the TEAM materials (e.g. the Building Thinking Skill workbook), and offering their respective students relevant classroom activities.

Extent to Which Project Students Obtained SAT Scores Above Those Expected from a Normal School Year Maturation

To determine the extent to which the TEAM pupils obtained SAT scores above and beyond those expected from normal maturation, several norm-referenced analyses were performed on the participants' 1986-87 SAT scores in reading comprehension, mathematics computation and mathematics application.

More specifically, based on the participants' 1985-86 performance on the SAT, predicted SAT scores for 1986-87 were derived and the difference between the obtained and the predicted scores were statistically analyzed. As Table Ia shows, results of these analyses suggested that, taken as a group, the pupils obtained statistically significant gains (beyond what would have been expected) beyond the .0001 level in reading comprehension, mathematics computation, and mathematics application. When the data were broken out by school, analyses showed that in 15 of the 16 TEAM schools, the pupils achieved gains in reading comprehension that were significantly better than expected. In mathematics computation, the TEAM pupils obtained gains that were significantly better than expected in 14 of the 16 TEAM schools. In addition, with regard to mathematics application, the students at the four TEAM schools where the test was administered also evidenced statistically significant gains above and beyond those expected.

Finally, it should be noted that, as Tables Ib and Ic show, when the data were broken out by ethnicity or by sex all five subgroupings (e.g., white non-Hispanics, black non-Hispanics, Hispanics; and males, and females) obtained significant gains from pre to posttest administrations.

In brief, it seems indisputable that the TEAM Project helped its participants achieve SAT scores above and beyond what they would typically have obtained from spending a year in school.

Extent to Which the Participants Achieved Peabody Picture Vocabulary Test Scores beyond Those Expected from Normal Maturation

To determine the extent to which the TEAM pupils obtained PPVT scores above and beyond those expected from spending a typical year in school, the PPVT was administered on a pre and posttest basis to all students involved in the TEAM Project. As Table IIa shows, statistical analysis suggested that, taken as a group, the participants achieved significant gains beyond the .0001 level ($t=.3423$, $p< 0.0001$).

Furthermore, as can be observed in Tables IIb and IIc, when the data were broken out by ethnicity or by sex, all five subgroupings (i.e. white non-Hispanics, black non-Hispanics, and Hispanics; and males, and females), analyses indicated that all achieved statistically significant gains above and beyond those expected from spending a typical year in school.

In short, it appears that the TEAM Project assuredly helped its participants obtain statistically significant PPVT scores above and beyond those expected from normal maturation.

Extent to Which Participants Achieved Admittance to Some Type of Advanced Academic Program

To ascertain the extent to which the TEAM Students achieved admittance to some type of advanced academic program, an examination was made of Project records and an interview was conducted with the Director of Advanced Academic Programs.

Table 1a.

Project Impact on Participants' SAT Scores

| Subtest | Post - Pre Mean Difference | Standard Error of the Mean | t | Probability of t |
|---|---|---|---|---|
| Reading Comprehension | 40.9581 | 2.2226 | 18.43 | 0.0001 |
| Mathematics Computation | 33.9491 | 2.9456 | 11.53 | 0.0001 |
| Mathematics Application | 39.5667 | 3.8070 | 10.39 | 0.0001 |

Table 1b

Project's Impact on Participants' SAT Scores

By Ethnicity

| Ethnicity | Subtest | Post-Pre Mean Difference | Standard Error of the Mean | t | Probability of t |
|---|---|---|---|---|---|
| White non-Hispanic | Reading Comprehension | 41.543 | 5.3049 | 8.58 | 0.0001 |
| | Mathematics Computation | 17.6286 | 8.9773 | 1.96 | 0.0578 |
| | Mathematics Application | 49.5000 | 10.7404 | 4.61 | 0.0025 |
| Black non-Hispanic | Reading Comprehension | 42.6383 | 3.1164 | 13.68 | 0.0001 |
| | Mathematics Computation | 37.3032 | 3.9318 | 9.49 | 0.0001 |
| | Mathematics Application | 40.6571 | 4.7832 | 8.50 | 0.0001 |
| Hispanic | Reading Comprehension | 36.8349 | 3.7956 | 9.70 | 0.0001 |
| | Mathematics Comprehension | 33.0640 | 5.1587 | 6.41 | 0.0001 |
| | Mathematics Application | 32.4375 | 8.1558 | 3.98 | 0.0012 |

Table 1c.

Project's Impact on Participants' SAT Scores

By Sex

| Gender | Subtest | Post - Pre Mean Difference | Standard Error of the Mean | t | Probability of t |
|---|---|---|---|---|---|
| Male | Reading Comprehension | 37.6029 | 3.3546 | 11.21 | 0.0001 |
| | Mathematics Computation | 36.7941 | 4.9693 | 7.40 | 0.0001 |
| | Mathematics Application | 35.1538 | 5.8425 | 6.02 | 0.0001 |
| Female | Reading Comprehension | 43.2626 | 3.8031 | 14.65 | 0.0001 |
| | Mathematics Computation | 31.9949 | 2.8207 | 8.85 | 0.0001 |
| | Mathematics Application | 42.9412 | 3.7169 | 8.56 | 0.0001 |

Table IIa.

Project's Impact on Participants' PPVT Scores

| Mean Difference | Standard Deviation | Sign Rank | Probability of t |
|---|---|---|---|
| 1.1061 | 3.3743 | 5.9639 | 0.0001 |

Table IIb.

Project's Impact on Participants' PPVT Scores

By Ethnicity

| Ethnicity | Mean Difference | Standard Deviation | Sign Rank | Probability of t |
|---|---|---|---|---|
| white non-Hispanic | 0.9728 | 1.1925 | 217.5 | 0.0001 |
| black non-Hispanic | 1.0135 | 4.2051 | 7797.5 | 0.0001 |
| Hispanic | 1.3317 | 1.8342 | 230.0 | 0.0001 |

Table IIc.

Project's Impact on Participants' PPVT Scores

By Sex

| Sex | Mean Difference | Standard Deviation | Sign Rank | Probability of t |
|---|---|---|---|---|
| Male | 0.8807 | 4.8196 | 3942 | 0.0342 |
| Female | 1.2653 | 1.7430 | 8013 | 0.0001 |

Information gathered from these sources indicated that 56 of the 447 TEAM pupils were referred for testing to determine if they would qualify for admittance to an advanced academic program.

Of the 56 who had been referred for testing, 28 had been tested by the end of of May, 1987. Of these 28, 21 had been accepted, and one had been rejected from the DCPS gifted program. In essence, about 75 percent of the TEAM pupils referred for testing into the gifted program had been accepted as of the preparation date of this report. This figure compares most favorably with the county-wide acceptance rate.

## Conclusions

Results of this study indicated that the vast majority of schools selected their TEAM students according to the proposal guidelines. In addition, the evaluation showed that the TEAM teachers developed appropriate lesson plans and instructional activities aimed toward enhancing their respective students' well-developed thinking skills and remediating those which were less well-developed. Furthermore, the appraisal showed that the TEAM Project significantly impacted its participants' SAT scores in reading comprehension, mathematics computation, and mathematics application above and beyond that expected from spending a typical year in school. Concomitantly, the evaluation also showed that the TEAM Project significantly influenced its participants' PPVT scores above and beyond what was expected from spending a typical year in school. Finally, the study revealed that a substantial percentage of TEAM pupils who were tested for the gifted programs were, indeed, accepted.

BUREAU RESPONSE/RECOMMENDATIONS/PLANS OF ACTION
TO ADDRESS EVALUATION FINDINGS*

*The following section was developed by program staff and is not an official part of the evaluation report itself. It consists of a bureau/office response and a list of actions/recommendations which are to be (or have already been) initiated by the relevant bureau/office. The recommendations were generated by program staff using input from the OEA evaluator(s) who conducted the evaluation.

December 15, 1987

**RESPONSE TO EVALUATION OF THE 1986-87 ECIA CHAPTER II TEACHING ENRICHMENT ACTIVITIES TO MINORITIES (TEAM) PROJECT**

A review of the 1986-87 ECIA Chapter II Teaching Enrichment Activities to Minorities (TEAM) Project has been completed by the Bureau of Education staff. As a result of this review and based upon the information contained in the referenced report, the following recommendations are being made:

1. Continue the project in its present form for the remainder of the 1987-88 school year.

2. This program has been funded by Chapter II as a pilot for the past four years. It has been extremely successful. Consideration should be given to funding the project as a systemwide categorical program. Appropriate budget enhancement recommendations are being developed for consideration in the 1987-88 budget process.

3. The program is based on alternative teaching methods which promote critical thinking. This is a great need in the entire school system but especially in the low socio-economic feeder patterns. A plan will be developed to expand the program to all low socio-economic elementary schools over the next two to three fiscal years.

4. The concepts which were successfully tested in this project and the use of appropriate materials should be utilized in the junior high/middle schools in the inner city. Specifically, the project should be expanded to include the 16 junior high/middle schools which feed the five high schools of Miami Northwestern, Miami Central, Miami Jackson, Miami Edison, and Miami Carol City. Appropriate budget enhancement recommendations are being developed for consideration in the 1987-88 budget adoption process.

These recommendations have been reviewed by Dr. Maria de Armas, Mr. Gary Rito, Dr. J. L. DeChurch, and Mr. Richard O. White, and have the concurrence of this office.

Frank de Varona

Frank de Varona